MINUTES

PRE-COUNCIL MEETING
Monday, September 12, 2005
10:15 a.m.
Conference Room #113

URBAN DRAINAGE PRELIMINARY ENGINEERING STUDY

Members present: Jon Camp, Robin Eschliman, Dan Marvin, Patte Newman and Ken Svoboda (Jonathan Cook and Annette McRoy absent).

Others present: Nicole Fleck-Tooze, Ben Higgins, Devin Biesecker, and Karen Sieckmeyer of Public Works/Utilities; Lalit Jha, JEO Consulting Group

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Ken Svoboda called the meeting to order at 10:15.

Nicole Fleck-Tooze, from Public Works/Utilities, introduced herself along with Lalit Jha from JEO Consulting Group. Nicole explained what was going to be talked about today is the evaluation/analysis of what is being performed for the storm drain system to identify the condition of the system; where there are deficiencies; what types of solutions are needed and how projects should be prioritized for the Capital Improvement Program. This also enables us to get all of the information into a Geographic Information System and a geo reference database so that we can overlay it with the other information that we have in our system for utilities and other infrastructure. What is needed to be done is to make sure that the same level of information is identified as for our other infrastructures like water, wastewater, etc. and that there is a sound system for identifying what kind of improvements need to be included in our Capital Improvement Program. Lalit is going to give an overview of the Engineering Study and some of the meetings that were held this summer for public input and one additional meeting we expect to have yet this fall.

Jha presented a slide presentation of this study (see attached slides).

Jha concluded his slide presentation by giving credit to J.D. Johnson and Kevin Kruse from JEO Consulting Group who are the Project Engineers and have worked very hard on this study.

Dan Marvin asked why we didn't look more in the downtown area? Is it because the upstream flows would be more of an impact and wanting to take care of those first; or why didn't we look at the downtown and older areas where obviously the materials are much greater age? Jha's understanding is that most of the area in the yellow, that you see on the map, is old. They went back in the records as to when it was built and most of them are built in the age of 1920's and 1940's. Part of the area that needed work done in the downtown area is Antelope Valley which is being completed. Fleck-Tooze added that they were looking at areas where historically had problems as a first cut for Phase I. If you would look in the pink area on the map, some of the downtown area is included in the next phase. There are two different issues, one is flooding from overtopping of the stream and as you look at the Salt Creek Floodplain, that is a whole separate issue from what is trying to be addressed here. Marvin stated that the infrastructure should be pretty old in the South Bottoms but maybe it has been replaced. Ben Higgins, with Public

Works/Utilities, stated a lot of the first phase that was picked out were from historical complaints. In the downtown area, we have had some complaints. In 1993 there was some major flooding and some improvements were made then.

Patte Newman mentioned the GIS database. Do we have an average age of underground infrastructure or does it not work that way? Jha said that as they complete this project, they will have a good idea of that information. Jha added that the age was added as they started the project. Newman asked if we had any idea what was the percentage of completion. Fleck-Tooze mentioned that the map that Jha has here are the areas that we are really trying to target because we know of deficiencies and age. At the same time, the staff is working to get everything into a base level GIS system from microstation and old paper maps. In order to get a full complete GIS system for our stormwater system, it is going to take some time. This part of it will be done in the next year, but we will still have some work to do to fill in some gaps. Newman asked if this was like the floodplain where it is a moving target also when we have to have more fill brought in to areas or is it completely different? Fleck-Tooze replied that it is not completely different. It has the potential to be a moving target, but with our new standards that we have for storm drainage, detention and for making sure that our new storm drain system can accommodate a higher storm event, there should be less impact in the future.

Jon Camp asked if there was any ballpark cost estimates for these various phases for the future? Fleck-Tooze said they have a long list of capital projects and they are listed in priority order so there is certainly a ballpark that is included right now in our Capital Improvement Program. It shows a general obligation bond issue every other year. There are portions that relate to the urban drainage system and portions that relate to other things. What could be done based on our newly adopted CIP is to identify, for the next six years, what portion of the dollars were targeted for our storm drain projects. Camp thought, at some point, we need to find out the estimates and as Fleck-Tooze mentioned, we have these ongoing requests for future bond issues. Camp thinks we owe it to the citizens to be rather careful on asking to improve those around the corner with these huge amounts. Part of the prioritization is not only in terms of flood control but also in financing.

Marvin thinks that we have done a good job of selling stormwater bonds in the past. This will allow voters to understand that we are not only talking about new growth areas where we are trying to get flooding under control out on the edge, but when you are looking at 100 year old infrastructure that pipes do break and the bond money does get allocated. It is more evenly distributed all around the whole city and he thinks that will be a plus.

The meeting was adjourned at 10:45.

Karen Sieckmeyer
Executive Secretary

City of Lincoln

Urban Drainage Preliminary Engineering Study

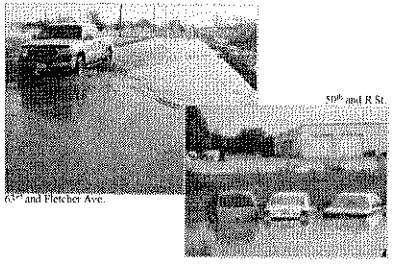
September 12, 2005

JEO

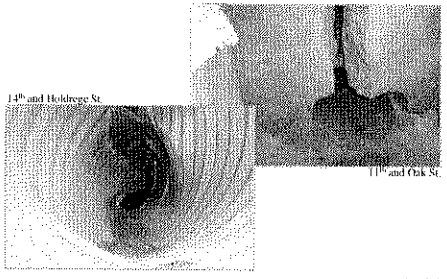
Urban Drainage Issues

- Flooding Problems
- Structural Condition of the System
- System Upgrades & Master Planning
- Operation and Maintenance
- Stormwater Program Financing

Localized Flooding



Condition of System



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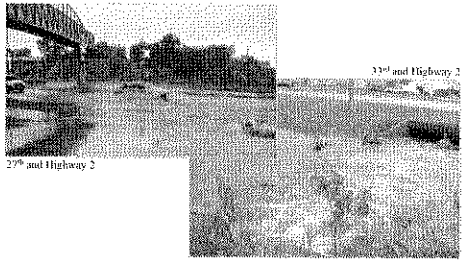
System Deficiency



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Urban Drainage Issues

"How can drainage problems be identified?"

"Which problems should be addressed first?"

"What are the financing needs?"

"Most bang for the buck"

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Urban Drainage Preliminary Engineering Study

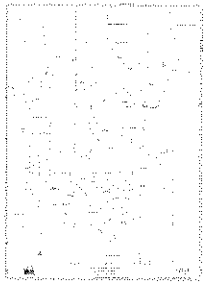
Project Objective

- Develop a "pro-active" prioritization methodology
- Identify stormwater CIP projects
- Enhance the City's stormwater database

Project Phasing

- Phase I
  - Phase I Study funded through 2003 Stormwater Bond
  - Projects prioritized in Phase I Study are being designed and constructed through the 2005 Stormwater Bond
- Phase II
  - Phase II Study funded through 2005 Stormwater Bond
  - Projected work schedule Aug 2005 through Dec 2006
  - Information will be utilized to update CIP list for future bond issues

Phase I Study Area Map



Data Preparation/Data Collection

Field Verification Worksheet
- Sump Locations
- Channel/Open Ditch
- Culvert Crossings

Picture BS02-013

Picture BS02-014

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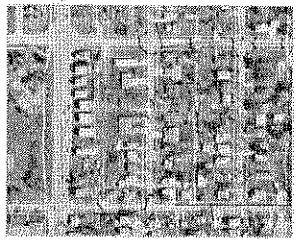
Deficiencies

Drainage System Deficiencies Based on Design Storm as Defined in City DCM by:
- Pipes (Discharge relative to Capacity)
- Inlets (Ponded Depth or Inlet)
- Ponding Areas (Structural Flood Frequency)
- Potential for Street Flooding



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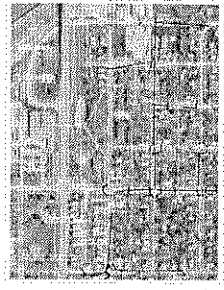
Proposed Improvements



- Structural Flooding
- Location
- City Design Standards
- Cost-Effectiveness

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Prioritization Categories

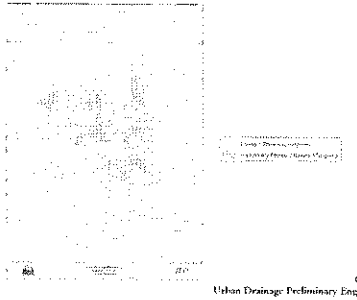
- Structural Flooding
- Non-Structural Flooding
- Existing Infrastructure Condition
- Miscellaneous Factors
  - health and safety
  - critical facilities
  - downstream impacts
  - maintenance development
  - links to other project improvements

Public Involvement

Four open house meetings were held during Summer 2005 to provide a medium for public input and awareness

- July 19th – Southeast Lutheran Church
- July 21st – Antelope Park Church of the Brethren
- July 26th – Church of Christ Northwest
- July 28th – Capitol City Christian Church
- Turner Ditch – October-November 2005

Future Studies



Design/Construction of Prioritized Projects

- Design/Construction of several drainage improvement projects proposed and prioritized during Phase I is underway
- Information from Phase II Study utilized to update CIP list for future bond issues
- Potential Design/Construction of additional priority Phase I and/or Phase II projects

Thank You!